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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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James R. Gloudemans II

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EXAMINER

DO, ANH HONG

ART UNIT

PAPER NUMBER

2624

DATE MAILED: 05/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/929,598

Applicant(s)

GLOUDEMANS ET AL.

Examiner

ANH H. DO

Art Unit

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-60 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2-13, 20-30, 42-46 and 53-56 is/are allowed.
- 6) ☐ Claim(s) 1, 14, 31, 37-41, 47-52 and 57-60 is/are rejected.
- 7) ☒ Claim(s) 15-19 and 32-36 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### ***Response to Arguments***

1. Applicant's arguments with respect to claims 1, 14, and 31 have been considered but are moot in view of the new ground(s) of rejection.

#### I. Rejection of claims under 35 U.S.C. 112:

In response to the Applicant's argument that "although the processors are programmed to perform a method, the claims are each directed to an apparatus", it should be noted that a single claim which claims both an apparatus and the method steps of using the apparatus (such as exemplary claim 37 reciting both an apparatus, in the pre-ample, and the method steps using the component of it in the claim body) is indefinite under 35 U.S.C. 112, second paragraph. In *Ex parte Lyell*, 17 USPQ2d 1548 (bd. Pat. App & Inter. 1990), a claim directed to an automatic transmission work stand and the method steps of using it was held to be ambiguous and properly rejected under 35 U.S.C. 112, second paragraph. Such claims should also be rejected under 35 U.S.C. 101 based on the theory that the claim is directed neither a "process" nor a "machine", but rather embraces or overlaps two different statutory classes of invention set forth in 35 U.S.C. 101 which is drafted so as to set forth the statutory classes of the invention in the alternative only. *Id.* at 1551. (see MPEP 2173.05(p)).

#### II. Rejection of claims under 35 U.S.C. 101:

With respect to the Applicant's assertion that claims 37-41, 47-52, and 57-60 are statutory, it should be noted that the USPTO "Interim Guidelines for Examination

of Patent Application for Patent Subject Matter Eligibility" (Official Gazette Notice of 22 November 2005), Annex IV, reads as follows:

*Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." The new IEEE Standard Dictionary of Electrical and Electronic Terms 308 (5<sup>th</sup> ed. 1993).) "Nonfunctional descriptive material" includes but not limited to music, literary works and a compilation or mere arrangement of data.*

*When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare In re Lowry, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994) (claim to data structure stored on a computer readable medium that increases computer efficiency held statutory) and Warmerdam, 33 f.3d at 1360-61, 31 USPQ2d at 1759 (claim to computer having a specific data structure stored in memory held statutory product-by-process claim) with Warmerdam, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory).*

*In contrast, a claimed computer readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permits the computer program's functionality to be realized, and is thus statutory. See Lowry, 32 F.3d at 1583-84, 32 USPQ2d at 1035.*

Claims 37-41, 47-52, and 57-60 define "processors programmed to perform a method" (i.e., a computer program) embodying functional descriptive material, but do not define a computer-readable medium or memory and are thus non-

statutory for that reason (i.e., "When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized" – Guidelines Annex IV).

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 37-39, 41, 47-49, 51, 52, and 57-60 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 37 recites an apparatus in the pre-amble but several steps of a method appear in the claim body. Thus, it is not clear whether the claim is an apparatus claim or a method claim.

A single claim which claims both an apparatus and the method steps of using the apparatus (such as exemplary claim 37 reciting both an apparatus, in the pre-amble, and the method steps using the component of it in the claim body) is indefinite under 35 U.S.C. 112, second paragraph. In *Ex parte Lyell*, 17 USPQ2d 1548 (bd. Pat. App & Inter. 1990), a claim directed to an automatic transmission work stand and the method steps of using it was held to be ambiguous and properly rejected under 35 U.S.C. 112, second paragraph. Such claims should also be rejected under 35 U.S.C. 101 based on

Art Unit: 2624

the theory that the claim is directed neither a “process” nor a “machine”, but rather embraces or overlaps two different statutory classes of invention set forth in 35 U.S.C. 101 which is drafted so as to set forth the statutory classes of the invention in the alternative only. *Id.* at 1551. (see MPEP 2173.05(p)).

Similarly, claims 38, 39, 41, 47, 48, 49, 51, 52, 57, 58, 59 and 60 are rejected for the same reason.

### ***Claim Rejections - 35 USC § 101***

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 37-39, 41, 47-49, 51, 52, and 57-60 are rejected under 35 U.S.C. 101 based on the theory that the claim is directed neither a “process” nor a “machine”, but rather embraces or overlaps two different statutory classes of invention set forth in 35 U.S.C. 101 which is drafted so as to set forth the statutory classes of the invention in the alternative only. *Id.* at 1551. (see MPEP 2173.05(p)).

6. Claims 37-41, 47-52, and 57-60 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Independent claims 37, 47, and 57 are drawn to functional descriptive material not claimed as residing on a computer readable medium. MPEP 2106.IV.B.1(a) (Functional Descriptive Material) states:

“Data structures not claimed as embodied in a computer-readable medium are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer.”

“Such claimed data structures do not define any structural or functional interrelationship between the data structure and other claimed aspects of the invention which permits the data structure’s functionality to be realized.”

Claims 37-41, 47-52, and 57-60 define “processors programmed to perform a method” (i.e., a computer program) embodying functional descriptive material, but do not define a computer-readable medium or memory and are thus non-statutory for that reason (i.e., “When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized” – Guidelines Annex IV).

Claims 37-41, 47-52, and 57-60, while defining a medium, do not define a “computer-readable medium” and are thus non-statutory for that reason. A medium can range from paper on which the program is written, to a program simply contemplated and memorized by a person. The examiner suggests amending to embody the program on “computer readable medium” in order to make the claims statutory.

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1, 14, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bolle et al. (U.S. Patent No. 5,546,475) in view of Lawrence et al. (U.S. Patent No. 5,559,632).

Regarding claims 1 and 14, Bolle discloses:

- receiving a set of two or more images of a scene (Fig. 1: frame grabber 142 for receiving a set of images from camera 120);
- identifying foreground for at least a subset of said images of said scene (col. 11, lines 11-13).

Bolle does not disclose expressly creating a video of said scene conveying an illusion of a camera moving around said scene, said step of creating a video is based on said set of two or more images and said step of identifying foreground.

Lawrence discloses creating a video of said scene conveying an illusion of a camera moving around said scene, said step of creating a video is based on said set of two or more images and said step of identifying foreground (col. 3, lines 7-27, teaching producing and presenting 3-D motion pictures, videos wherein a scene to be photographed based on the foreground (i.e., the scene is illuminated in a manner such that the light intensity on the mid-ground is approximately 50% greater than the intensity on the foreground), and the scene conveying an illusion of the Pulfrich 3-D and the camera is movable around the scene); and col. 5, lines 26-46: camera 12 moves around scene 10 to create videos based on several images shot by camera 12).



Bolle & Lawrence are combinable because they are from camera system.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to create scene videos in the above manner in Bolle as taught by Lawrence.

The suggestion/motivation for doing so would have been to improve the technique for producing motion pictures so as to provide a strong stereo 3-D effect without distracting side effect, and while avoiding adverse results, such as dizziness and nausea together with improved lighting and the proper speed that the camera should be moving while photographing a scene to produce the optimum Pulfrich 3-D effect (Lawrence, col. 2, line 65 – col. 3, line 6).

Therefore, it would have been obvious to combine Bolle with Lawrence to obtain the invention as specified in claim 1.

Regarding claim 31, Bolle discloses a computer 140 (Fig. 1) for storing readable code to perform the steps as discussed in claim 1 above.

### ***Allowable Subject Matter***

9. Claims 15-19 and 32-36 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. Claims 2-13, 20-30, 42-46, and 53-56 are allowed.

11. The following is a statement of reasons for the indication of allowable subject matter:

Regarding independent claim 2, the prior art, taken either singly or in combination does not teach:

- wherein said step of identifying foreground comprises the steps of: .... Said union identifies said foreground.

Regarding claims 3-5, since these claims depend upon claim 2, they are also allowable for the same reason.

Regarding independent claim 6, the prior art, taken either singly or in combination does not teach:

- said first set of one or more video images appears... and said second angle; said second set of one or more... and said third angle.

Regarding claims 7-13, since these claims depend upon claim 6, they are also objected for the same reason.

Regarding independent claim 20, the prior art, taken either singly or in combination does not teach:

- creating one or more... different angles.

Regarding claims 21-26, since these claims depend upon claim 20, they are also allowable for the same reason.

Regarding independent claims 27 and 53 and dependent claim 32, the prior art, taken either singly or in combination does not teach:

- subtracting said second image for said first image to create a first difference; subtracting said third image from said first image to create a second difference;

creating a union of said first difference and said second difference, said union identifies said foreground.

Regarding claims 28-30, since these claims depend upon claim 27, they are also allowable for the same reason.

Regarding claims 54-56, since these claims depend upon claim 53, they are also allowable for the same reason.

Regarding claims 15 and 36, the prior art, taken either singly or in combination does not teach:

- warping a first image... from a second camera; warping a third image... from said second camera; removing... said third image; filling... said third image; creating new images.. with said third image.

Regarding claims 17 and 34, the prior art, taken either singly or in combination does not teach:

- creating one or more... one or more video images; and blurring... more new images.

Regarding claims 19 and 35, the prior art, taken either singly or in combination does not teach:

- creating matches ... and said third video image; discarding bad chains; creating morphs.. on said chains.

**Contact Information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANH H. DO whose telephone number is 571-272-7433. The examiner can normally be reached on 5/4-9.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MATTHEW BELLA can be reached on 571-272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

May 24, 2006



**ANH HONG DO  
PRIMARY EXAMINER**